Claims

- 1. A method of inducing tolerance in a recipient
- 2 mammal of a first species to a tissue obtained from a mammal
- 3 of a second species, which tissue expresses an MHC antigen,
- 4 said method comprising
- 5 inserting DNA encoding an MHC antigen of said second
- 6 species into a bone marrow hematopoietic stem cell from
- 7 said recipient mammal, and
- 8 allowing said MHC antigen encoding DNA to be
- 9 expressed in the recipient.
- 1 2. The method of claim 1, wherein said cell is
- 2 removed from said recipient mammal prior to said insertion
- 3 and returned to said recipient mammal after said insertion.
- 1 3. The method of claim 1, wherein said recipient is
- 2 a human.
- 1 4. The method of claim 1, wherein said mammal is a
- 2 swine.
- 1 5. The method of claim 4, wherein said swine is a
- 2 miniature swine.
- 1 6. The method of claim 1, wherein said DNA is
- 2 obtained from the individual mammal from which said tissue
- 3 is obtained.
- 7. The method of claim 1, wherein said DNA is
- 2 obtained from an individual mammal which is syngeneic to the
- 3 individual mammal from which said tissue is obtained.

- 1 8. The method of claim 1, wherein said DNA is
- 2 obtained from an individual mammal which is MHC identical to
- 3 the individual mammal from which said tissue is obtained.
- 1 9. The method of claim 1, wherein said DNA
- 2 comprises an MHC class I gene.
- 1 10. The method of claim 1, wherein said DNA
- 2 comprises an MHC class II gene.
- 1 11. The method of claim 1, wherein said DNA is
- 2 inserted into said cell by transduction.
- 1 12. The method of claim 11, wherein said DNA is
- 2 inserted into said cell by a retrovirus.
- 1 13. The method of claim 12, wherein said DNA is
- 2 recipient is a human and said retrovirus is a Moloney-based
- 3 retrovirus.
- 1 14. A method of inducing tolerance in a recipient
- 2 mammal to a tissue obtained from a donor mammal of the same
- 3 species, which tissue expresses an MHC antigen, said method
- 4 comprising
- 5 inserting DNA encoding an MHC antigen of said donor
- 6 into a bone marrow hematopoietic stem cell from said
- 7 recipient mammal, and
- 8 allowing said MHC antigen encoding DNA to be
- 9 expressed in the recipient.
- 1 15. The method of claim 14, wherein said cell is
- 2 removed from said recipient prior to said insertion and
- 3 returned to said recipient after said insertion.

- 1 16. The method of claim 14, wherein said recipient
- 2 is a human.
- 1 17. The method of claim 14, wherein said DNA
- 2 comprises an MHC class I gene.
- 3 18. The method of claim 14, wherein said DNA
- 4 comprises an MHC class II gene.
- 1 19. The method of claim 14, wherein said DNA is
- 2 inserted into said cell by transduction.
- 1 20. The method of claim 19, wherein said DNA is
- 2 inserted into said cell by a retrovirus.
- 1 21. The method of claim 20, wherein said retrovirus
- 2 is a Moloney-based retrovirus.